

REMARKS

Applicants thank the Examiner for the very thorough consideration given the present application. Claims 1-15 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 102

Claims 1, 3-6, 8-12 and 14-15 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Davenport et al. (U.S. Pat. No. 5,343,367). This rejection is respectfully traversed.

At the outset, independent Claim 1 has been amended to now recite "a solid body having external walls defined by a first and second overlapping semi-ellipsoids, said external walls defining a source focal point within said body and target focal points adjacent opposite ends of said body; and a light source disposed within said body at said source focal point; wherein the walls of said body cause total internal reflection of light emitted from said source focal point to said target focal points." As such, Applicant is further describing the external walls of the solid body as being two overlapping semi-ellipsoids.

In contrast, Davenport '367 appears to be generally directed to a projection headlamp system for a vehicle that includes a pair of high and low beam subsystems. The subsystems include an arc discharge light source, a pair of optical couplers, a pair of distributing conductors, and a pair of light projecting arrangements (Col. 3, lines 58-68 and Figure 1). Of particular interest, Davenport '367 discloses the pair optical couplers with a

body having a generally rectangular cross-sectional configuration (Col. 5, lines 4-5 and Figure 2 and 5). Davenport '367 fails to teach or suggest external walls defined by a first and second overlapping semi-ellipsoids.

Applicant submits that the geometrical configuration of the external walls of the present invention provide total internal reflection. The configuration of the external walls effectively operate as a reflector. Therefore, the light bulb of the present invention is used as a reflector and the use of an external reflector is not needed. The semi-ellipsoid configuration increases efficiency by eliminating an efficiency loss associated with incorporating a secondary reflector. The ellipsoidal geometry also allows light emitted from the light source to reflect from a more refractive medium to a less refractive medium, thus achieving the emission of light rays at each target focal point by total internal reflection. Davenport '367 does not make any reference to having such a geometrical configuration; rather he uses a rectangular configuration.

Therefore, it is respectfully submitted that independent claim 1, along with claims depending therefrom are now patentable and in condition for allowance.

Applicant submits that independent Claim 6 includes similar limitations to Claim 1. In addition, independent Claim 6 recites "opposite ends defined by conical end portions extending from said semi-ellipsoids". Davenport '367 fails to teach or suggest opposite ends defined by conical end portions extending from semi-ellipsoids. Instead, Davenport '367 appears to disclose output ends with a planar surface that extend from the optical couplers (Col. 5, lines 11-12 and Figure 2 and 5). The conical end portions of present invention provide a mounting structure that is favorable in certain applications. Davenport '367 makes no reference to a conical geometry.

Therefore, it is respectfully submitted that independent claim 6, along with claims depending therefrom are now patentable and in condition for allowance.

Applicant submits that independent Claim 11 recites similar limitations to Claim 1, Therefore, for the same reasons as noted above, independent claim 11, along with claims depending therefrom, are now patentable and in condition allowance.

REJECTION UNDER 35 U.S.C. § 103

Claims 2, 7 and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Davenport et al. (U.S. Pat. No. 5,343,367) in view of Davenport et al. (U.S. Pat. No. 6,302,571). This rejection is respectfully traversed.

Applicant submits that claims 2, 7 and 13 depend from independent claims 1, 6, and 11, respectively, which are now patentable and in condition for allowance. Thus, claims 2, 7, and 13 should also be patentably distinct.

ADDED CLAIMS

Applicant is adding new Claim 16 for consideration. Support for the new claims can be found throughout the specification and drawings as originally filed. As such, no new matter is being added.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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